

# Memorandum

**To:** CollegeCounts 529 Board  
**From:** Union Bank & Trust / Wilshire Funds Management  
**Date:** October 14, 2014  
**Re:** PIMCO Recommendation

Per our telephone conversation on September 30, 2014, Wilshire Funds Management (“WFM”) recommends removing the PIMCO Total Return Fund as an allocation in all CollegeCounts Plan portfolios and as an individual fund option. WFM’s concerns with PIMCO organizationally, and with the PIMCO Total Return Fund specifically, are outlined in the attached communication that was distributed to our clients. As an interim step before a replacement is approved at the November 2014 board meeting, Wilshire recommends assets held in PIMCO Total Return be moved into the Vanguard Total Bond Market Index Fund and the Northern Bond Index Fund, for Direct and Advisor plan assets, respectively.

WFM recommends MainStay Total Return Bond to replace PIMCO Total Return, with Prudential Total Return Bond as our second favored replacement option. These two funds are high-quality, reasonably priced options that are highly rated by Wilshire’s Manager Research team. The MainStay Total Return Bond Fund, subadvised by MacKay Shields, is the preferred option for its top-down process, strong sector capabilities, and historical tendency to protect in down markets. The below table details each fund’s expense and Manager Research score.

Fund Name	Ticker	Expense	AUM	Manager Research Score	Recommendation
PIMCO Total Return	PTTRX	0.46%	\$ 201.6 Billion	6 <sup>th</sup> Decile	Removal
MainStay Total Return Bond	MTMIX	0.60%	\$ 0.9 Billion	1 <sup>st</sup> Decile	Proposed Option
Prudential Total Return Bond	PTRQX	0.52%	\$ 4.1 Billion	1 <sup>st</sup> Decile	Alternate Option

Source: Wilshire Compass

Fund Name	Quarter	One Year	Three Years	Five Years	Ten Years
As of September 30, 2014					
PIMCO Total Return	-0.36%	3.30%	4.57%	5.07%	6.00%
MainStay Total Return Bond	-0.38%	5.38%	4.35%	5.51%	5.26%
Prudential Total Return Bond	0.07%	6.01%	5.24%		
Barclays Aggregate Index	0.17%	3.96%	2.43%	4.12%	4.62%

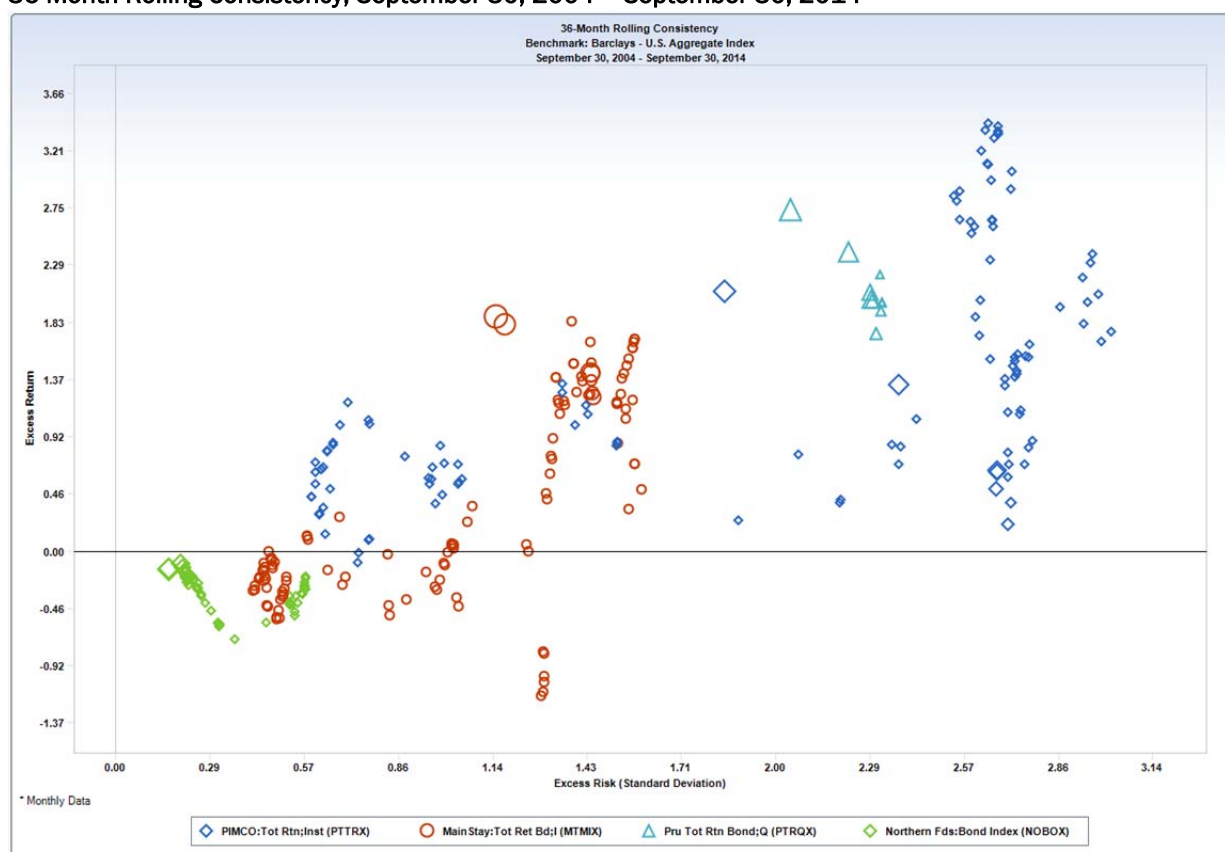
Source: Wilshire Compass

Fund Name	Ticker	Expense	Peer Group Median	Expense Rank Within Peer Universe *
PIMCO Total Return	PTRX	0.46%	0.52%	28%
MainStay Total Return Bond	MTMIX	0.60%	0.52%	62%
Prudential Total Return Bond	PTRQX	0.52%	0.52%	47%

\*Peer Group Is Intermediate-Term Bond Category and Only Institutional Share Classes

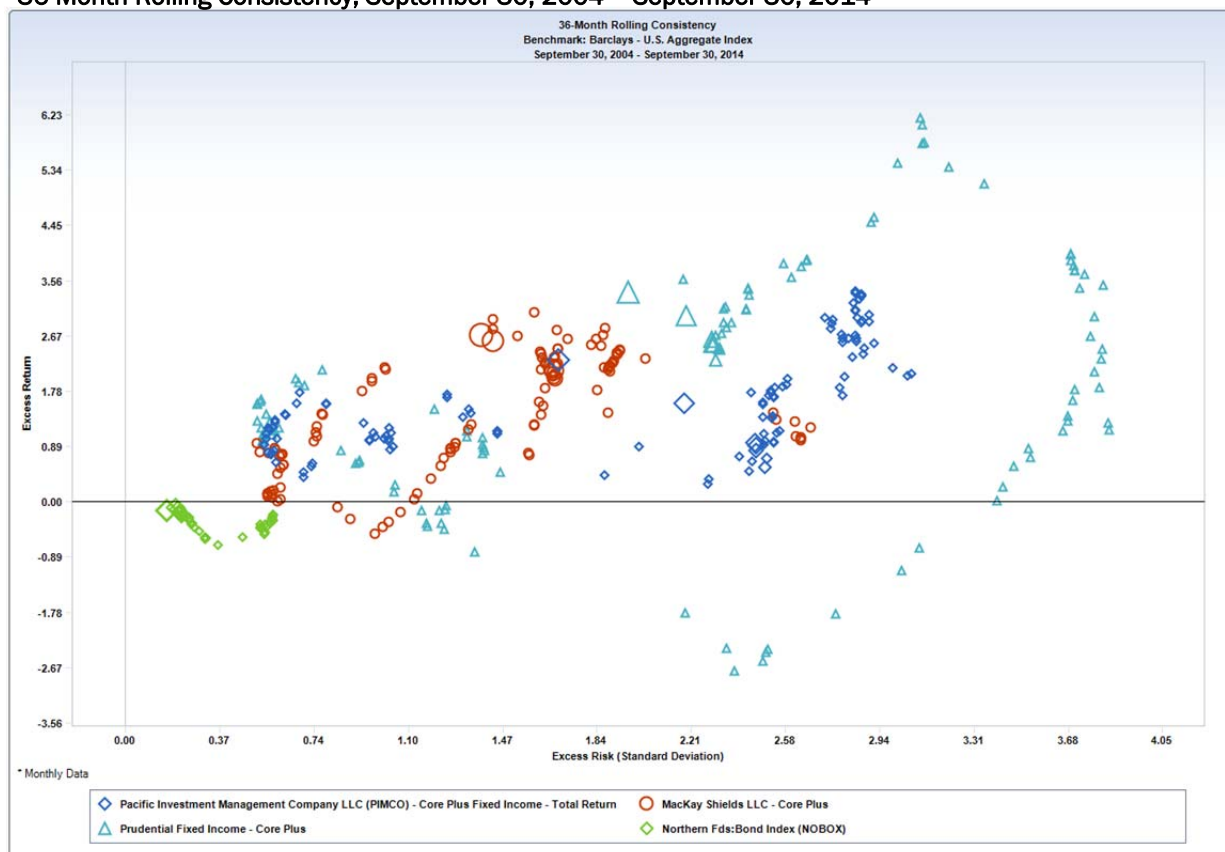
Source: Morningstar

### 36-Month Rolling Consistency, September 30, 2004 – September 30, 2014



Source: Wilshire Compass

## 36-Month Rolling Consistency, September 30, 2004 – September 30, 2014



Note: Due to short performance history of Prudential Total Return Fund, separate account data was used to simulate risk/return profiles except for the Northern Bond Index.  
Source: Wilshire Compass

## Risk / Return Profile, September 30, 2009 – September 30, 2014



Note: Due to short performance history of Prudential Total Return Fund, separate account data was used to simulate risk/return profiles except for the Northern Bond Index.  
Source: Wilshire Compass

**Mainstay Total Return (MacKay Shields Core Plus)**

The strategy is managed by the MacKay Shields Global Fixed Income team, including Portfolio Managers Dan Roberts, Lou Cohen, Michael Kimble, and Taylor Wagenseil. This strategy seeks to outperform the Barclays Aggregate Bond Index in small increments with below average volatility and a maximum allocation of 20% to “Plus” sectors. A typical portfolio includes between 200 and 300 issues and can allocate up to 10% in foreign issues and 20% in below-investment-grade issues. This strategy takes a top-down approach, believing that monetary policy is the biggest driver of credit growth and business cycles. The team will actively manage sector exposures based on the current stage of the economic cycle. We expect this strategy to perform well throughout a full market cycle but add particular value during market downturns.

**Prudential Core Plus**

Michael Lillard, CIO, oversees all Prudential fixed income products, and the Core Plus strategy is led by Senior Portfolio Managers Richard Piccirillo and Mike Collins. The Senior Investment Team meets quarterly and establishes a single, firm-wide “top-down” outlook on the economy and interest rate as well each sector of the bond market. The strategy is supported by sector teams that actively select and trade securities to generate excess return in their sectors. The strategy has a bias towards corporates, as well as MBS and some ABS, as is typically underweighting U.S. Treasuries. The strategy seeks to add 150 basis points of alpha over the Barclays Capital U.S. Aggregate Bond Index, with 250 basis points of tracking error. The firm implements the strategy through a pre-established risk budget that seeks modest

*October 14, 2014*

increments of value from making small bets on multiple sources, such as sector allocation, subsector and industry allocation, security selection, and modest duration/yield curve positioning. Due to the credit bias of the strategy, we expect it to do well when corporates outperform.

Fund fact sheets and evaluations with detailed information on each of the recommended funds are attached.

<b>To:</b>	Wilshire Funds Management Clients
<b>From:</b>	Wilshire Funds Management
<b>Subject:</b>	PIMCO Organizational Update
<b>Date:</b>	October 3, 2014

### Summary

Wilshire Funds Management (“WFM”), the global investment management business unit of Wilshire Associates Incorporated, has removed all PIMCO funds from its Focus List in light of the recent abrupt departure of the firm’s CIO and Founder, Bill Gross. In addition, we have reduced PIMCO’s firm-level rating to 7<sup>th</sup> decile, down from 4<sup>th</sup> decile, which had reflected the notable departure of Mohammed El-Erian earlier in the year. Strategy specific subcomponent ratings are being reduced where appropriate.

Below is a list of the strategies where WFM has the most concern and strongly encourages clients to seek alternative options. We have a short list of alternatives for each strategy available.

### Strategy Specific Opinions and Recommendations

#### Total Return

- Total Return is the most impacted fund in the PIMCO lineup.
- Bill Gross was the lead portfolio manager on this fund and it will be assumed by Mark Kiesel, Scott Mather and Mihir Worah, all CIOs (formerly Deputy CIOs post Mr. El-Erian’s departure).
- Scott Mather has been named as the lead portfolio manager on the fund.
- Bill Gross is a macro investor and the loss of his views on the portfolio could have a large impact on the investment style of the fund, for better or worse, going forward.
- This fund may potentially experience significant outflows which could impact performance, warranting that mutual fund clients promptly consider alternatives.
- Manager Research has reduced the ratings for this strategy in the following components: Organization (both firm and team level), Information, Forecasting and Implementation.
- The overall rating has been reduced from 2<sup>nd</sup> decile to 6<sup>th</sup> decile rating.
- The reduction in score reflects short-term uncertainty surrounding potential outflows, the impact outflows could have on performance and firm economics, the risk of additional investment professional departures and the likely change in experience client’s may have due to a change in investment style and fund leadership. Due to the impact of potential flows on performance, it may be prudent for mutual funds investors to redeem in the near term. Separate account clients may be slightly more insulated from negative performance from potential outflows.

**Low Duration Core / Low Duration Core Plus Full Authority**

- Taking into account the other personnel losses on the fund this year, Mr. Gross' departure has a meaningful impact on the firm's Low Duration strategy.
- At the beginning of 2014, there were four primary portfolio managers that managed U.S. Low Duration accounts – in order of tenure: Bill Gross, Chris Dialynas, Saumil Parikh, and Mark Seidner – with Mr. Gross listed as sole portfolio manager on the Low Duration Fund. Three of the four portfolio managers are no longer with PIMCO (while the firm announced that Chris Dialynas will return from sabbatical, it is unclear if he will manage low duration portfolios), and Saumil Parikh recently assumed additional responsibilities on stable value mandates and has also transitioned to a larger role with the Unconstrained Bond Fund.
- Jerome Schneider, head of the firm's short term desk and lead portfolio manager on Short-Term, and Scott Mather will now be the primary portfolio managers for the Low Duration Fund and separate accounts.
- Manager Research is concerned that the significant personnel changes to the low duration platform and the outflows that may result from Mr. Gross' departure will adversely impact client experience in these accounts.

**StocksPLUS**

- A suite of enhanced equity index products that gain equity exposure through futures/swaps and generate alpha from a collateral portfolio.
- At the beginning of 2014, there were four primary portfolio managers that managed accounts in the StocksPLUS product suite – in order of tenure: Bill Gross, Chris Dialynas, Saumil Parikh, and Mark Seidner – with Mr. Gross listed as sole portfolio manager on the mutual funds. As noted previously, three of the four portfolio managers are no longer with PIMCO.
- For StocksPLUS Absolute Return, the collateral portfolio mirrors the guidelines of the Unconstrained Bond Fund. Given the wide constraints, the fund will likely take on a different profile under its new management.
- For StocksPLUS and StocksPLUS Full Authority, the collateral portfolio is a short duration (zero to one year) fixed income portfolio. While the alpha generating capabilities relative to a cash benchmark may not be severely impaired, we are concerned that the significant personnel changes to this platform and the outflows that may result from Mr. Gross' departure will adversely impact client experience in these products.

**Unconstrained Bond Fund**

- Bill Gross became more involved in the Unconstrained Bond Fund after being announced as a portfolio manager for the fund earlier this year.
- We believe the strategy may be exposed to downside risk in the midst of meaningful client redemptions, particularly because Mr. Gross' name is attached to the fund.
- The strategy has also seen changes to its portfolio management team which has altered the fund's overall profile. The portfolio will yet again experience new leadership influences stemming from the recent appointments of Dan Ivascyn and Mohsen Fahmi as portfolio managers. Saumil Parikh, a global macro specialist, provides some continuity to investors as an incumbent portfolio manager for the fund and third official member of the team.
- Our assessment is that over the longer term the fund should remain competitive, but that in the short term it stands to endure technical headwinds. We believe these headwinds are difficult to dismiss despite the fund being supported by its roster of seasoned portfolio managers.



**Mutual Funds Where Bill Gross was Named Portfolio Manager**

*PIMCO StocksPLUS Fund*  
*PIMCO Low Duration Fund*  
*PIMCO Total Return Fund*  
*PIMCO Total Return Fund III*  
*PIMCO Low Duration Fund II*  
*PIMCO Total Return Fund II*  
*PIMCO Moderate Duration Fund*  
*PIMCO Low Duration Fund III*  
*PIMCO StocksPLUS AR Short Strategy Fund*  
*PIMCO StocksPLUS Absolute Return Fund*  
*PIMCO Fundamental IndexPLUS AR Fund*  
*PIMCO Small Cap StocksPLUS AR Strategy Fund*  
*PIMCO International StocksPLUS AR Strategy Fund (Unhedged)*  
*PIMCO Fundamental Advantage Absolute Return Strategy Fund*  
*PIMCO Unconstrained Bond Fund*  
*PIMCO EM Fundamental IndexPLUS AR Strategy Fund*  
*MassMutual Select PIMCO Total Return Fund*  
*PL Managed Bond Fund*  
*PIMCO Total Return Fund IV*  
*PIMCO Total Return Exchange-Traded Fund*  
*PIMCO Worldwide Fundamental Advantage AR Strategy Fund*

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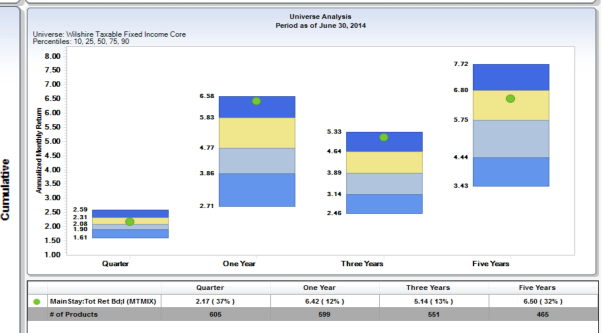
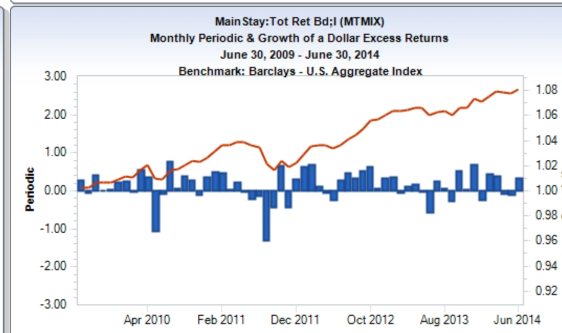
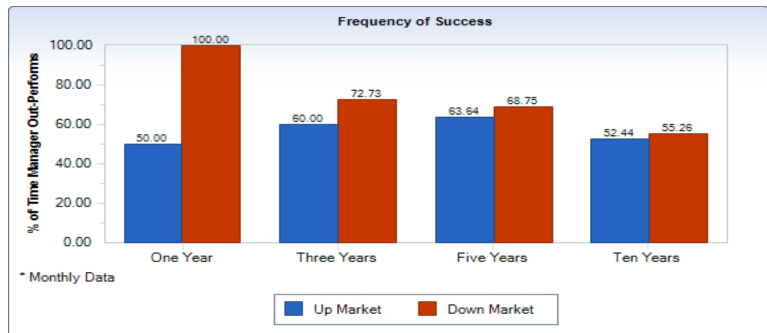
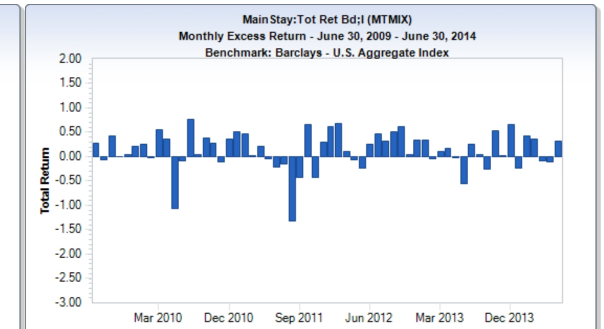
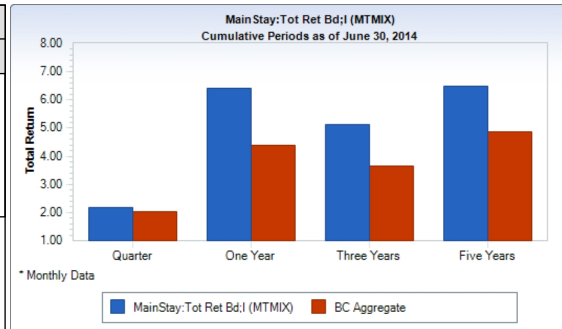
## Performance Fact Sheet: MainStay:Tot Ret Bd;I (MTMIX)

Fund Family: MAINSTAY FUNDS  
 Asset Class: Taxable Fixed Income  
 Style Category: Core Bond Funds  
 Objective Category: CORE BOND  
 Ticker: MTMIX  
 Share Class: I

Net Assets (\$MM): \$751.60  
 Expense Ratio: 0.60  
 Front Load:  
 12B-1 Fee:  
 Turnover: 65.00  
 Mgr Tenure: 3

Historical Returns	Annualized Ended 6/30/2014				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
MainStay:Tot Ret Bd;I (MTMIX)	6.42	5.14	6.50	5.65	-0.79	8.09	7.39	8.40	7.27	4.93	5.91	4.30	1.85	4.54
BC Aggregate	4.37	3.67	4.85	4.93	-2.02	4.22	7.84	6.54	5.93	5.24	6.96	4.33	2.43	4.34
Risk-Standard Deviation														
MainStay:Tot Ret Bd;I (MTMIX)	2.02	2.89	2.99	3.29	3.64	2.14	2.50	3.14	3.64	5.85	2.59	2.64	3.05	4.02
BC Aggregate	2.39	2.77	2.85	3.25	3.19	2.01	2.35	2.91	3.34	6.09	2.64	2.70	3.14	4.04
Risk-Semi-Variance														
MainStay:Tot Ret Bd;I (MTMIX)	1.49	2.29	2.32	2.41	2.86	1.41	1.83	2.30	2.79	3.93	1.83	1.90	2.27	3.42
BC Aggregate	1.68	2.07	2.16	2.31	2.37	1.26	1.62	2.21	2.72	3.83	1.89	1.90	2.31	3.42
Excess Returns														
Arithmetic Excess	2.05	1.47	1.65	0.72	1.23	3.87	-0.45	1.86	1.34	-0.31	-1.05	-0.03	-0.58	0.20
Geometric Excess	1.96	1.42	1.57	0.69	1.26	3.71	-0.42	1.75	1.26	-0.29	-0.98	-0.03	-0.57	0.19

Excess Statistics Manager vs. Benchmark	Annualized Ended 6/30/2014			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	1.07	1.44	1.35	1.14
Information Ratio	1.84	0.98	1.16	0.60
Downside Deviation	0.75	1.14	1.07	0.84
Skewness	0.11	-1.15	-1.24	-0.70
Kurtosis	-1.27	2.56	2.96	2.64
Alpha	2.99	1.74	1.86	0.81
Beta	0.76	0.91	0.94	0.96
Residual Risk	0.90	1.43	1.35	1.14
R Squared	0.80	0.76	0.80	0.88



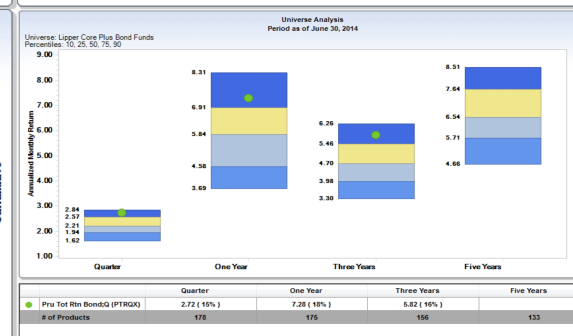
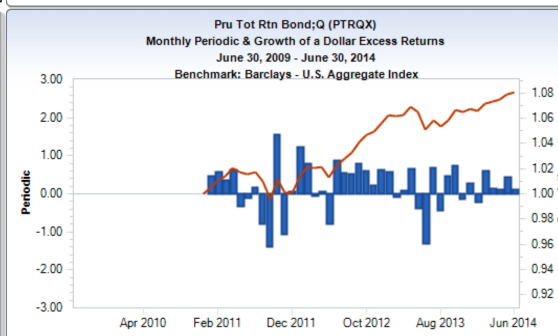
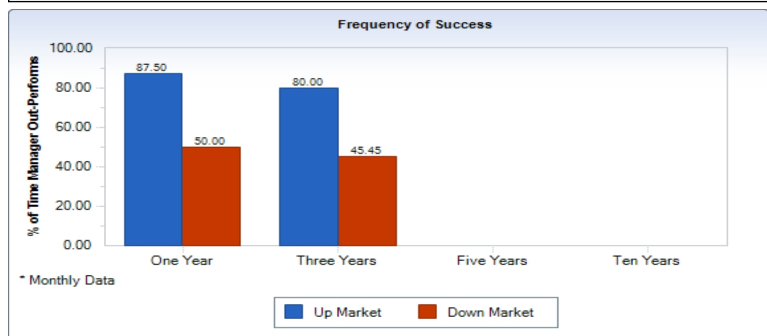
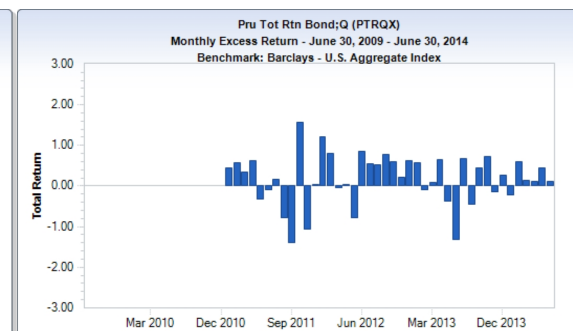
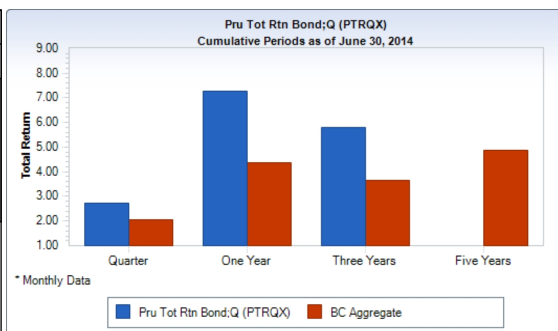
## Performance Fact Sheet: Pru Tot Rtn Bond;Q (PTRQX)

Fund Family: Prudential Investments  
 Asset Class: Taxable Fixed Income  
 Style Category: Core Plus Bond Funds  
 Objective Category: CORE BOND  
 Ticker: PTRQX  
 Share Class: Standard

Net Assets (\$MM): \$82.80  
 Expense Ratio: 0.52  
 Front Load:  
 12B-1 Fee:  
 Turnover: 188.00  
 Mgr Tenure:

Historical Returns	Annualized Ended 6/30/2014				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
Pru Tot Rtn Bond;Q (PTRQX)	7.28	5.82	N/A	N/A	-0.94	9.96	7.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BC Aggregate	4.37	3.67	4.85	4.93	-2.02	4.22	7.84	6.54	5.93	5.24	6.96	4.33	2.43	4.34
Risk-Standard Deviation														
Pru Tot Rtn Bond;Q (PTRQX)	3.03	3.83	N/A	N/A	4.88	2.53	3.36	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BC Aggregate	2.39	2.77	2.85	3.25	3.19	2.01	2.35	2.91	3.34	6.09	2.64	2.70	3.14	4.04
Risk-Semi-Variance														
Pru Tot Rtn Bond;Q (PTRQX)	2.32	3.07	N/A	N/A	3.76	1.72	2.57	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BC Aggregate	1.68	2.07	2.16	2.31	2.37	1.26	1.62	2.21	2.72	3.83	1.89	1.90	2.31	3.42
Excess Returns														
Arithmetic Excess	2.91	2.15	N/A	N/A	1.08	5.74	0.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Geometric Excess	2.79	2.07	N/A	N/A	1.10	5.51	0.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Excess Statistics Manager vs. Benchmark	Annualized Ended 6/30/2014			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	1.28	2.29	N/A	N/A
Information Ratio	2.17	0.91	N/A	N/A
Downside Deviation	0.94	1.76	N/A	N/A
Skewness	-0.33	-0.60	N/A	N/A
Kurtosis	-0.79	0.44	N/A	N/A
Alpha	2.12	1.67	N/A	N/A
Beta	1.16	1.12	N/A	N/A
Residual Risk	1.23	2.27	N/A	N/A
R Squared	0.84	0.65	N/A	N/A



	Quarter	One Year	Three Years	Five Years
Pru Tot Rtn Bond;Q (PTRQX)	2.72 (15%)	7.28 (15%)	5.82 (15%)	
# of Products	178	175	166	133

## Manager Research

**MackKay Shields LLC**

## Core Plus

**Summary**

Rating Decile	Weight
1st	100%

MackKay Shields provides three types of core product with varying degrees of risk exposure, including Core (conservative), Core Plus (aggressive), and Core Plus Opportunities (most aggressive). The team is comprised of highly experienced professionals with a long history of working together. The strategy holds securities only if their yields are high enough to compensate for the associated risks. The process includes a top-down element as well as a bottom-up security selection process. The team employs a four-step investment process by first determining where the economy falls in the risk cycle, then tilting duration, yield curve, sector allocation, and security selections to take advantage of the market environment.

Rating Decile	Weight
1st	20%

**I. Organization**

Founded in 1938 as an economic consulting firm, MacKay Shields has expanded over time to offer products across the full range of fixed income products as well as international equity and convertible strategies. The firm was later purchased by New York Life Insurance Company in 1984, but it remained autonomous. MacKay Shields manages separate accounts and sub-advises most of the Mainstay Funds, the mutual fund platform of New York Life Investment Management (NYLIM). In 2009, the firm acquired the assets of Mariner Municipal Managers LLC, and its municipal team joined as a result. MacKay Shields prides themselves as a multi-boutique organization with diverse revenue streams from their different products and teams.

Compensation is comprised of a base salary and an annual bonus that is available to all employees. The incentive bonus equal to a significant percentage of the firm's pre-tax profits and is paid annually to the firm's employees based upon the individual's performance and the profitability of the firm. MacKay Shields has established a Phantom Stock Plan where awards can be made annually and vesting takes place over a period of several years. Participation in the plan by senior professionals is contingent upon the execution of an Executive Employment Agreement.

The strategy is managed by the newly formed Global Fixed Income team, including Portfolio Managers Dan Roberts, Lou Cohen, Michael Kimble, and Taylor Wagenseil. The team is an integration of the former High Yield Active Core team led by Dan Roberts (came from Pareto Partners in 2004) and the former Core team led by Gary Goodenough. In 2011, Gary Goodenough announced that he was scheduled to retire by 2013, and Dan Roberts became the new head. There were two departures and two additions as the result of the integration. The firm hired 3 investment professionals in 2013: a junior analyst, an analyst to the Global Fixed Income team and a client PM. The firm is looking to add a junior trader in 2014. The new team has a more defined structure and division of responsibilities. The analyst coverage has more depth and breadth. Manager Research feels that this transition has been well managed and has little impact on the firm's ability to manage portfolios.

Rating Decile	Weight
1st	20%

**II. Information**

The team focuses on both top-down and bottom-up credit analyses. With the integrated team, corporate credit research became a stand-alone function with 6 analysts covering investment grade and high yield credits. Credit analysts utilize a wide range of sources to gather information, such as company financial statements, Wall Street research, periodicals, competitors, and customers. Team members also have access to research performed by the firm's other teams, such as value, growth, convertibles, and small cap. One competitive advantage MacKay Shields has over peers is the greater access to company management that it gains due to its size. For example, analysts often conduct one-on-one meetings with management at road shows and conferences. As a result, team members are better positioned to make qualitative business assessments that are crucial to the investment process. MacKay Shields therefore receives a high score in information collection. With the combined team in place, they are well resourced and are more effective and efficient.

# MackKay Shields LLC

## Core Plus

	Rating Decile	Weight
III. Forecasting	1st	20%

The team exercises a four-step investment process. Step one starts with a top-down macro overlay by determining what stage of the risk cycle the economy is in. The team believes that there is a risk cycle every 3-5 years. Portfolios should have certain characteristics during different stages of the cycle to take advantage of the environment and yield levels. Step two is to decide on the five key fixed income risk factors based on their determination of the economy position in the cycle. For example, during an early recovery stage such as 2009-2010, the portfolios had a shorter duration, a flattening curve bias, and an emphasis in sectors such as high yield and convertibles. Step three assesses sector relative valuations and opportunities. Step four is to evaluate individual security risk-return values. For yield curve and duration analysis, the team also uses proprietary models to forecast the direction of interest rates and the fair value of curve structure. The team analyzes relative value by examining the historical spreads within and outside a sector to aid in forecasting future performance. The security selection process begins with reviewing individual security spread relationships and comparing them with alternative issues. The team favors issues with attractive yields and credit quality stable and improving. All securities are reviewed using a 32 risk factor model and any security with credit issues is removed from the process prior to conducting in depth qualitative and quantitative analysis. Once a bond is approved from a credit standpoint, relative value analysis is conducted to determine if the security will be added to the portfolio.

Overall, the team has a systematic forecasting process and a blend of top-down and bottom-up approaches. The strategy also benefits from returns that have been consistent and strong on a risk/return basis relative to other core plus peers. The top-down allocation decisions have also helped the portfolio provide good downside protection. Please note, the Core and Core Plus composites dates back to the former Core team led by Gary Goodenough, and the Core Plus Opportunities composite dates back to the former High Yield Active Core team led by Dan Roberts.

	Rating Decile	Weight
IV. Portfolio Construction	3rd	20%

Portfolios are constructed in line with the top down forecasts for duration, yield curve, sector allocation, and issue selection. The team provides three categories of core product with varying degrees of risk exposure: Core (conservative), Core Plus (aggressive), and Core Plus Opportunities (most aggressive). In 2011, the team developed and implemented a new risk budgeting and monitoring system. It takes into account of portfolio guidelines and current holdings to ensure that risk exposure is consistent across platform, at the same time in line with client guideline spirit.

This strategy seeks to outperform the Barclays Aggregate Bond Index in small increments with below average volatility and a max allocation of 20% to Plus sectors. A typical portfolio includes between 200 and 300 issues and can allocate up to 20% in foreign issues with a 10% limit on currencies and 20% in below-investment-grade issues. The team invests in larger, more liquid issues of \$200 million or more. While the team is benchmark aware, tracking error may vary depending on the current stage of the market cycle as well as PM investment decisions. Within the credit portion of the portfolio, limits are imposed such that the portfolio must have exposure to 10 of 13 broad industry classes and net exposure must fall within certain range to ensure diversification. The team further diversified the holdings, reducing the average position size to 0.5%-1.5% from close to 3%. Exposure to a single issuer is limited to the benchmark weight plus 3%. Duration is kept within +/-20% of the benchmark. Sector or industry weightings are unconstrained as the team looks to allocate to the most attractive opportunities for value add.

	Rating Decile	Weight
V. Implementation	1st	10%

The team has four traders. The annual portfolio turnover has ranged from 60% to 120%. The firm utilizes TradeWeb and MarketAxess as its trading platforms. The firm also uses Charles River as its order management and compliance system. MacKay Shields has a brokerage committee that monitors trade execution quality and brokerage allocations. Senior representatives from each of the investment teams head the committee. The team changed the portfolio profile from risk averse to risk seeking in a matter of months during early 2009 in the Core Plus Opportunities portfolios, demonstrating their ability to effectively implement strategy shifts and generate above-peer returns. Overall, the team is staffed with experienced traders and has adequate resources and systems.

	Rating Decile	Weight
VI. Attribution	3rd	10%

Monthly performance attribution is generated using a proprietary transaction-based methodology. Excess return is distributed among five factors: duration, yield curve, sector weighting, issue selection, and yield. The team also conducts sector performance attribution to determine the rotation effect between Treasury, Agency, Corporate, residential MBS, CMBS, ABS, and cash. The team uses daily attribution reports to monitor every issue in the portfolio verses the benchmark to verify that active bets are in line with the views of the investment team. The integration of attribution into the investment process has aided in their portfolio construction effort.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

# MackKay Shields LLC

Core Plus

## Firm Information

### **MackKay Shields LLC**

1345 Avenue of the Americas  
43rd FL  
New York, NY-10105

**FIRM FOUNDED:** 1938

**OWNERSHIP :** Wholly Owned Subsidiary

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## Manager Research

**Prudential Fixed Income**

## Core Plus

**Summary**

Rating Decile	Weight
1st	100%

The Prudential Core Plus strategy is suitable for both stand alone and/or multi-manager assignments. The strategy seeks to add 150 basis points of alpha over the Barclays Capital Aggregate Index, with 250 basis points of tracking error. The strategy maintains duration of +/- 0.5. The firm implements the strategy through a pre-established risk budget that seeks modest increments of value from making small bets on multiple sources, such as sector allocation, subsector and industry allocation, security selection, and modest duration/yield curve positioning.

Rating Decile	Weight
1st	20%

**I. Organization**

Prudential Investment Management, Inc. (PIM) is a registered investment advisor established in 1984. PIM is an indirect subsidiary of Prudential Financial that became a publicly held company on 12/18/01. PIM's various units include Prudential Fixed Income and Prudential Real Estate Investors. In addition, PIM owns other investment management subsidiaries including Jennison Associates, LLC. Many of the investment professionals have stock options and/or restricted stock in Prudential Financial, Inc., the parent company, but total compensation is not directly tied to PIM. Compensation is received through a combination of base salary and performance-based incentive comp that consists of cash bonus, restricted stock and deferred grants (3Y cliff vesting). As of 4Q13, PIM reported \$348 billion of AUM managed by 65 investment managers and supported by 80 research analysts and 67 quant analysts. Of the AUM, \$9 billion is associated with the Core Plus strategy.

Michael Lillard, CIO oversees all fixed income products. The Core Plus strategy is led by Senior Portfolio Managers Richard Piccirillo and Mike Collins. Kay Willcox is set to retire in 3q14 and most of her time has been spent on the Core strategy. The Senior Investment Team meets quarterly and establishes a single, firm-wide "top-down" outlook on the economy and interest rate as well each sector of the bond market. The strategy is supported by sector teams that actively select and trade securities to generate excess return in their sectors.

The strategy is also supported by Quantitative Research and Risk Management Groups that develop sector allocation models and analytics used in US Government and mortgage security selection; Credit Research Team performs fundamental credit research on investment grade corporate bonds and Structured Products Research Group focuses on fundamental credit research of ABS, and a senior level Credit Committee to monitor all credit positions across Prudential Fixed Income.

The team is experienced with senior professionals averaging 20+ years of investment experience. The stability and experience of the team lead to a high score.



# Prudential Fixed Income

## Core Plus

	Rating Decile	Weight
II. Information	1st	20%

Research is internally generated and assisted by external perspectives. Prudential believes that direct contacts at issuing companies provide the most valuable sources of information. Analysts use Edgar and Disclosure systems which provide on-line access to SEC filed documents. The team also supplements market intelligence from broker/dealers, rating agencies and vendors such as CreditSights to identify credit risks.

The research is done by three dedicated teams: 1) A 10-member Quantitative Research and Risk Management Groups develop asset allocation models and analytics used in US Government and mortgage security selection; 2) A 82-member Credit Research Team, with 29 members dedicated to investment grade bonds, conducts fundamental research on subsectors and issuers; 3) A 11-member structured product research group conducts fundamental research of ABS securities.

Several models are used by the Quant Team. In the US Government market, buy/sell decisions are made using a proprietary yield curve model (a Gaussian 2+ Arbitrage-Free option pricing construct) to identify attractive/unattractive securities. This model uses key parameters to fit prices simultaneously of actively traded, off-the-run US Treasuries and swaptions, defining each issue's "fundamental value" as the difference between its market yield and its fitted yield. In the Mortgage-Backed Securities market, buy/sell decisions result from evaluating the output of two proprietary models. One is an option-adjusted spread (OAS) model that provides OAS for every mortgage security in the universe versus both US Treasury and LIBOR curves. The second is an implied mortgage prepayment framework to analyze current mortgage market prices and interpret market prepayment expectations.

The strategy receives high marks relative to peers as the team's breadth is both large in personnel and seasoned in experience.

	Rating Decile	Weight
III. Forecasting	1st	20%

Each quarter the senior investment team formally meets and establishes key themes including term structure and sector exposures. The key themes are reflected across all strategies taking into account mandate constraints. Once the sector allocation is set, the sector specialists select and trade securities.

Desktop-based quantitative models underpin individual security selections for the US Treasury, agency and mortgage-backed security markets, though the strategy does not rely exclusively on model outputs. The team may override models to reflect subjective views over technical supply factors or economic news. Corporate security selection is based on fundamental credit research. Research analysts conduct fundamental analysis on 38 corporate subsectors and approx. 600 issuers. PM contributes analyses from trading, spread and liquidity perspectives. Collectively, nine different scores (1-5 ranking, 5 being best) are assigned for each data point such as creditworthiness, liquidity, and yield spread. Each score is equally weighted to arrive at an overall weighted score on each issuer within each subsector. The relative value ranking produces a formal Corporate Bond Research List that provides a roadmap to over- and underweight recommendations.

The Quant Group continually evaluates the assumptions and other parameters behind the firm's models and revises or refits them as needed to maintain their relevancy and effectiveness in current markets. The firm notes that it has utilized these models for long periods of time because of theoretical soundness and empirical results of positive alpha generation over time.

# Prudential Fixed Income

## Core Plus

	Rating Decile	Weight
IV. Portfolio Construction	1st	20%

The Prudential Core Plus strategy is suitable for both stand alone and/or multi-manager assignments. The strategy seeks to add 150 basis points of alpha over the Barclays Capital Aggregate Index, with 250 basis points of tracking error. The strategy maintains duration of +/- 0.5. The firm implements the strategy through a pre-established risk budget that seeks modest increments of value from making small bets on multiple sources, such as sector allocation, subsector and industry allocation, security selection, and modest duration/yield curve positioning.

Portfolio construction begins with the senior investment team's quarterly market outlook. Following that, the Portfolio Managers for the Core and Core Plus Fixed Income Strategies follow a disciplined process to construct the initial portfolios and then review them weekly. All Desk Heads, as well as the portfolio managers for the Core and Core Plus Strategies, meet weekly to discuss the latest market developments and trends. The senior members of the Core and Core Plus Fixed Income Strategy Teams then follow that meeting with a separate Weekly Sector Allocation meeting. Those meeting participants include the Chief Investment Officer, the Head of Quantitative Research and Risk Management, the Core and Core Plus Senior Portfolio Managers, the Chief Investment Strategist, and sector specialists for the Core and Core Plus sectors.

The team analyzes current portfolio positioning and sector allocations in the context of the current and expected market environment. The output of the Weekly Sector Allocation meetings is a clear "blueprint" for each client's portfolio in Core and Core Plus strategies that spells out agreed-upon positioning regarding the portfolio's risk profile, tracking error targets, duration and yield curve positioning, sector allocations, and other portfolio characteristics. The Senior PM is responsible for constructing the portfolio that effectively implements the risk budgets in the current market environment, while operating within both Prudential Fixed Income investment policy and client investment guidelines. The weight of each security in the portfolio is based on the credit analyst's conviction and ranking from the Corporate Bond Research List.

The strategy ranks well among peers due to its systematic and repeatable process.

	Rating Decile	Weight
V. Implementation	1st	10%

Trading is handled by portfolio management teams that specialize in the specific sectors of the market. The trading floor is centrally located, thereby putting the specialists in close contact with traders and in touch with broker/dealer information flow. The portfolio managers and traders typically use various electronic methods to obtain competitive prices from several "Approved List" brokers and counterparties for each trade. Senior management closely monitors all trading in client portfolios for best price and execution. Both the Head of Fixed Income and a member of the Compliance unit monitor quarterly trade volume by broker-dealer, from both an overall firm standpoint and individual portfolio manager standpoint. The compliance unit includes 14 associates specifically dedicated to Prudential Fixed Income. Automated pre-trade compliance checks are performed with restrictions coded in the system. Calculation based guidelines are reviewed on a daily back end basis, supplemented by manual tests where applicable. PIM does not engage in soft dollar arrangements.

	Rating Decile	Weight
VI. Attribution	1st	10%

Prudential maintains a very tight benchmark risk control. A pre-established risk budget specifies where active risk is to be taken and to what degree risks may be assumed. The following risks are analyzed and monitored daily: 1) Interest rate risk measured by key rate duration analysis; 2) Systematic risk measured by tracking error; 3) Residual risk, such as issuer and industry exposure; and 4) Intensive daily credit monitoring.

Prudential maintains a comprehensive proprietary performance attribution system (ARMS) that is fully integrated with trade capture, portfolio management, and risk management systems. The firm uses Aladdin as its trading system while PAM is used as its accounting and financial reporting system. Performance attribution for all portfolios is calculated daily and delivered monthly. Daily attribution includes sector, duration, yield curve, subsector, industry, and individual security. Portfolio managers review performance attribution monthly for the portfolios they manage evaluating each position to determine whether the result is as expected or whether repositioning is warranted. A separate Risk Manager also reviews these reports and discusses unusual items with the portfolio manager.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		B		C		D		F	

# Prudential Fixed Income

Core Plus

## Firm Information

### Prudential Fixed Income

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**OWNERSHIP :** Wholly Owned Subsidiary

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